UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/631,101	08/01/2000	Harold David Gunn	80342	5898

20350 7590 06/14/2005

TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER	
BLACKWELL, JAMES H	

ART UNIT	PAPER NUMBER
2176	

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/631,101	GUNN ET AL.	
	Examiner	Art Unit	
	James H. Blackwell	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 March 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-56,83-85,96-106,130-133,136-139 and 142-189* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-56,83-85,96-106,130-133,136-139 and 142-189* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 August 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to Restriction/Election received 03/18/2005 and to a First Action dated 07/12/2004.

Claims 1-56, 83-85, 96-106, 130-133, 136-139, and 142-189 are pending.

Claims 57-82, 86-95, 107-129, 134-135, and 140-141 have been cancelled.

Claims 70-81, 86-89, 91-95, 107-129, 134-135, and 140-141 were cancelled due to election of Group I.

Election/Restrictions

Applicant's election of Group I in the reply filed on 03/18/05 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5, 9, 14-21, 24, 30-32, 38-39, 46-53, 56, 83-85, 96-100, 105-106, 131, 133, 155-162, 164-171, and 189 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (U.S. Patent No. 5,805,911) in view of Hachamovitch et al. (hereinafter Hachamovitch, U.S. Patent No. 6,377,965).

In regard to independent Claim 1 (and similarly independent Claim 47), Miller teaches *(a) receiving a partial text entry* in that Miller's invention is a text completion system that automatically displays a list of completion suggestions for a partial data entry in response to a pause in receipt of the data entry (Col. 7, lines 66-67, Col. 8, lines 1-2). Miller fails to teach the additional limitation *comprising at least a first character*. However, Hachamovitch teaches a partial data entry consisting of a single character (Col. 7, lines 31-38; see example where user enters single letter "M"). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Hachamovitch as both inventions relate to offering suggestions for completion candidates based on partial text entry. Adding the teaching

of Hachamovitch provides the benefit of offering suggestions based on as few as a single character, therefore increasing the variety of suggestions.

Miller continues by teaching *(b) ... obtaining a dynamically generated list of completion candidates based on the partial text entry* in that the text completion system applies search criteria to the partial data entry. If the partial data entry satisfies the search criteria the text completion system obtains a prioritized list of word predictions for the partial data entry from the word prediction system (Col. 8, lines 2-5). As mentioned previously, the teaching of Hachamovitch allows for the partial text entry to consist of a single character making it obvious to one of ordinary skill in the art at the time of invention to combine Miller and Hachamovitch as previously stated above.

Miller also teaches *(c) displaying the list of completion candidates in a search list within a graphical user interface* in that the prioritized list of completion suggestions is typically displayed in a pop-up list box in a non-intrusive manner (Co1. 8, lines 12-13).

Miller also teaches *(d) receiving a user input signal associated with the pointing device* in that the user may accept a completion suggestion from the list by touching a stylus to the display screen over the position of the desired completion suggestion (Col. 8, lines 17-19) thus producing an input signal.

Miller fails to teach *(e) if the user input signal corresponds to a first type of user selection with the pointing device, deactivating the search list.* However, since it is notoriously well known in the art of pen-based computing to dismiss windows such as a text completion window once a user has finished with it,it would have been obvious to one of ordinary skill in the art at the time of inventionfor a user to deactivate said search

list, providing the benefit of continued input with a clear screen uncluttered by windows that are no longer being used.

Miller continues by teaching *(f) if the user input signal corresponds to a second type of user selection with the pointing device, replacing the partial text entry with a completion candidate from the search list* in that once the completion suggestions have been displayed, the text completion system may receive an acceptance command associated with a particular one of the completion suggestions. In response to the acceptance command, the text completion system completes the partial data entry with the additional characters of the particular completion suggestion and discontinues the display of the prioritized list of completion suggestions (Step (428) of Fig. 4; Col. 5, lines 28-35).

In regard to dependent Claim 2 (and similarly dependent Claim 48), Miller teaches *dynamically obtaining a refined list of completion candidates based on one of the completion candidates from the search list;* and *displaying the refined list of completion candidates in the search list for further user selection, and monitoring for a further user input signal associated with the pointing device* (see Fig. 4).

In regard to dependent Claim 3, Miller teaches that *the pointing device is lifted up from an input-sensitive surface of the personal computing device without any significant movement once the search list is displayed* in that display of a list of

completion suggestions for a partial data entry in response to a pause (pen up) in receipt of the data entry (Col. 7, lines 66-67, Col. 8, lines 1-2).

Miller also teaches the user may accept a completion suggestion from the list by touching the stylus to the display screen (Col. 8, lines 17-20). The pause in receipt of data entry would have suggested to one of ordinary skill in the art at the time of invention that the pointing device would have been lifted up from the input-sensitive surface providing the benefit of not invoking other functions.

In regard to dependent Claim 4, Miller fails to explicitly teach that the user input signal corresponds to the first type of user selection with the pointing device when a button on a mouse is selected. However, Miller suggests the use of arrow keys to select a completion suggestion and the "enter" key to accept the selected completion suggestion (Col. 8, lines 17-21). One of ordinary skill in the art at the time of invention would have found it obvious to assume that any combination of regular keys, function keys, or mouse buttons could have been used with the pointing device to achieve the desired effect.

In regard to dependent Claim 5, Miller teaches that *when a gesture is made with the pointing device towards a completion candidate in the search list to select the completion candidate and another user input signal is received indicating acceptance by the user of the completion* candidate in that the user may accept a completion suggestion from the list by touching a stylus to the display screen over the position of

the desired completion suggestion, or by using the "arrow" keys to select a completion suggestion and the "enter" key to accept the selected completion suggestion (Col. 8, lines 17-21). It is also noted that the prioritized list of completion suggestions is typically displayed in a pop-up list box in a non-intrusive manner (Col. 4, lines 45-46). Thus one of ordinary skill in the art at the time of invention can visualize a user sliding the pointing device moving the list up or down through the list of completion candidates and then accepting one with another gesture, rendering such a sequence of gestures obvious.

In regard to dependent Claim 9, Claim 9 reflects the method of processing text entered into a personal computing device with a pointing device as claimed in Claim 1 (and similarly Claim 47), and is rejected along the same rationale.

In regard to dependent Claim 14, Miller teaches *preparing to receive a new partial text entry once the partial text entry is replaced with a completion candidate from the search list* in that in Fig. 2B the graphical user interface (201) after the user has entered an acceptance command for a selected text completion suggestion. The transition from Fig 2A to Fig. 2B illustrates the effect of a user command accepting the completion suggestion "extremely" for the partial data entry "ext". This acceptance command causes the partial data entry "ext" to be completed with the additional characters "remely". The display of the pop-up box is then discontinued (Col. 13, lines 20-29).

In regard to dependent Claim 15 (and similarly dependent Claim 49), Miller teaches *receiving an end-of-entry signal and preparing to receive a new partial text entry once the end-of-entry signal is received* an acceptance command causes the partial data entry "ext" to be completed with the additional characters "remely". The display of the pop-up box is then discontinued (Col. 13, lines 25-29).

In regard to dependent method Claim 16, Miller teaches *receiving an end-of-entry signal once a predetermined character or key is selected, and preparing to receive a new partial text entry once the end-of-entry signal is received* in that the user may accept the selection by entering an acceptance command (Col. 13, lines 10-12).

In regard to dependent method Claim 17 (and similarly dependent Claim 50), Miller teaches *preparing to receive a new partial text entry after the partial text entry is replaced with a completion candidate from the search list, but only if another user input signal is received that corresponds to an express user selection to terminate searching based on the partial text entry* in that an acceptance command causes the partial data entry "ext" to be completed with the additional characters "remely". The display of the pop-up box is then discontinued (Col. 13, lines 25-29).

In regard to dependent Claim 18 (and similarly dependent Claim 51), Miller teaches *displaying on the graphical user interface an indication of a currently active entry mode selected from at least one of a keyboard mode and a search mode* in that

the user may accept a completion suggestion from the list by touching the stylus to the display screen over the position of the desired completion suggestion (Col. 4, lines 50-52).

In regard to dependent Claim 19 (and similarly dependent Claim 52), Miller teaches *displaying on the graphical user interface a total number of completion candidates in a dictionary that begin with the partial text entry* in that if there are text completion suggestions that satisfy the display criteria, the "YES" branch is followed from step (414) to step (418), in which the completion suggestions are displayed in priority order in the list box (206) on the LCD display (47). The maximum number of completions suggestions displayed in the pop-up list box (206) may be a user-definable parameter with a default value of five (Col. 18, lines 31-38).

In regard to dependent Claim 20, Miller teaches *changing selections within the search list* in that the user may change the selected completion suggestion by manipulating the position of the selection indicator using the up and down "arrow" keys on the keyboard (Col. 13, lines 7-9).

In regard to dependent Claim 21 (and similarly dependent Claim 53), Miller teaches *pausing without any further processing of the partial text entry or the search list until a new input signal identifying another type of user selection is received* in that the text completion system (200) detects a pause of predefined duration in the entry of the

string of characters (202). The pause duration may be a user-definable parameter with a default value of 0.5 sec. If a pause occurs that is longer than the predefined duration, the text completion system (200) determines whether the string of text (202) defines a partial data entry (204) that meets certain search criteria (Col. 12, lines 10-16).

In regard to dependent Claim 24, Claim 24 reflects the method of processing text entered into a personal computing device with a pointing device as Claimed in Claim 1 (and similarly Claim 47), and is rejected along the same rationale.

In regard to dependent Claim 30 (and similarly dependent Claim 56), Miller teaches *retrieving completion candidates from multiple dictionaries each having their own weight values for completion candidates and generating a final list of completion candidates for display in the search list based on weight values associated with the completion candidates retrieved from the multiple dictionaries* in that the word prediction system includes a dictionary having a list of static dictionary entries and a list of dynamic dictionary entries. The static dictionary entries are predefined for the word prediction system and do not change as the system is used. The word prediction system includes a probability score associated with each entry in the static dictionary entry. The probability score indicates the frequency of the occurrence of the particular dictionary in a large training corpus (Col. 8, lines 22-30).

In regard to dependent Claim 31, Claim 31 reflects the method of processing text entered into a personal computing device with a pointing device as claimed in Claim 30 and is rejected along the same rationale.

In addition, Miller teaches *retrieving completion candidates and generating a final list of completion candidates for display in the search list based on both weight values and on which of the dictionaries each particular completion candidate is retrieved from* in that the word prediction system produces a prioritized list of word predictions by comparing the partial data entry to the entries in a dictionary to obtain a list of feasible words. The word prediction system submits the list of feasible words to a plurality of word prediction experts and obtains a word prediction score for each entry in the list of feasible words from each expert. The word prediction system positions each word prediction in the prioritized list of word predictions based on a computed indication of likelihood of being a correct completion suggestion (Col. 5, lines 41-51). Hence, the list of word predictions is ranked both weight values and by expert.

In regard to dependent Claim 32, Miller teaches *displaying the search list in a fixed location on a graphical user interface* (Col. 8, lines 12-15).

In regard to dependent Claims 38 and 39, Miller teaches *at least one of the completion candidates from the list of completion candidates displayed in the search list near a last known set of position coordinates for the pointing device slightly offset from at least one of an x-axis or y-axis* (Col. 8, lines 12-15).

In regard to dependent Claim 46, Miller teaches *computer-readable medium* (see Abstract).

In regard to independent Claim 83, Claim 83 reflects the method of processing text entered into a personal computing device with a pointing device, as Claimed in Claims 1-2 (and similarly Claims 47-48), and is rejected along the same rationale.

In regard to independent Claim 84, Claim 84 reflects the method of processing text entered into a personal computing device with a pointing device, as claimed in Claim 1 (and similarly Claim 47), and is rejected along the same rationale.

In addition, Miller teaches an input interface, a processing unit, and computer-readable medium containing computer-readable instructions for directing the processing unit to assist with text generation and entry (see Fig. 1).

In regard to independent Claim 85, Claim 85 reflects the method of processing text entered into a personal computing device with a pointing device, as Claimed in Claim 2 (and similarly Claim 48), and is rejected along the same rationale.

In regard to independent Claim 96 (and similarly independent Claims 155, and 189), Claim 96 (and similarly Claims 155, and 189) reflects the method of processing text entered into a personal computing device with a pointing device, as

Claimed in Claims 1-2 (and similarly Claims 47-48), and is rejected along the same rationale.

In regard to dependent Claim 97 (and similarly dependent Claim 157), Miller teaches *(a) receiving a new user input signal associated with the pointing device; (b) if the new user input signal corresponding to accepting a completion candidate from the second plurality of completion candidates displayed in the search list to the partial text entry, modifying the partial text entry to become the accepted completion rep candidate from the second plurality of completion candidates displayed in the search list; and (c) if the new user input signal corresponds to selecting a completion candidate from the second plurality of completion candidates displayed in the search list to initiate further searching, obtaining a further plurality of completion candidates based on the selected completion candidate and displaying the further plurality of completion candidates in the search list for further selection* in that the sequence of events depicted in the flow chart (Fig. 4) will repeatedly and dynamically reduce (or increase) the number of completion candidates based on user input of characters.

In regard to dependent Claim 98 (and similarly dependent Claims 159, and 168), Miller fails to explicitly teach *displaying ... a graphical indication when at least one more additional completion candidate beginning with the partial text entry is available in addition to the completion candidates displayed in the search list.* However, this is a notoriously well-known feature in the art of graphical user interfaces for offering more

options in, for example, a pull-down menu, rendering such a feature obvious to one of ordinary skill in the art at the time of invention.

In regard to dependent Claim 99 (and similarly dependent Claims 158, 161, 165, 167, and 169), Miller fails to explicitly teach *displaying the completion candidates in the search list with the part of each completion candidate matching the partial text entry displayed in a manner different from the remaining part of each of the completion candidates displayed in the search list.* However, this is a notoriously well-known feature in the art of graphical user interfaces for distinguishing entries in, for example, a pull-down menu, rendering such a feature obvious to one of ordinary skill in the art at the time of invention.

In regard to dependent Claim 100, (and similarly dependent Claims 162, and 170), Miller fails to explicitly teach *displaying a completion candidate in substantially the same position in the search list each time the completion candidate is displayed in the search list.* However, it would have been obvious to one of ordinary skill in the art at the time of invention to expect this behavior as one would expect a sequence of events described by Miller to be repeatable for a given like user input, providing the benefit of predictability and repeatability in a user interface.

In regard to dependent Claims 105 and 106, Miller teaches *obtaining, for display in the search list, a second dynamically generated list of completion candidates*

based on the partial text entry, in response to modification of the partial text entry (Fig. 4).

In regard to dependent Claims 131, 133, Claims 131, 133 reflect the method of processing text entered into a personal computing device with a pointing device as Claimed in Claim 104 and is rejected along the same rationale.

In regard to dependent Claims 156, and 166, Claims 156, and 166 reflect the method/computer-readable medium of processing text entered into a user interface with a pointing device as claimed in Claims 96 and 83, and are rejected along the same rationale.

In regard to dependent Claims 157 (and similarly dependent Claims 160, and 164), claims 157, 160, and 164 reflect the methods, systems, and computer-readable mediums of processing text entered into a user interface with a pointing device as claimed in Claims 83-85, 96, and 155, and are rejected along the same rationale.

In regard to dependent Claim 158 (and similarly dependent Claims 165, and 167), claims 158, 165, and 167 reflect the methods, systems, and computer-readable mediums of processing text entered into a user interface with a pointing device as claimed in Claims 83-85, 96, and 155, and are rejected along the same rationale.

In regard to dependent Claim 171, Claim 171 reflects the method of processing text entered into a personal computing device with a pointing device as Claimed in Claim 142 and is rejected along the same rationale.

Claims 6, 8, 10-11, 130, 132, and 136-139 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller in view of Hachamovitch and in further view of Agulnick et al. (hereinafter, Agulnick, U.S. Patent No. 5,347,295).

In regard to dependent Claim 6, Miller fails to teach *a gesture is made with the pointing device onto a completion candidate in the search list to select the completion candidate, and the completion candidate remains selected for a predetermined time limit.* However, Agulnick teaches an event begins when the stylus touches the front surface of the display, input is then terminated in one of three ways: (a) by lifting the stylus from the surface; (b) by a series of strokes followed by a final lift of the stylus and lack of contact for a specific time interval, or "timeout" (Col. 1, lines 66- 68, Col. 2, lines 1-3). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Agulnick as both inventions relate to pen-based computing. Adding the teaching of Agulnick provides the benefit of assuring that the user had chosen the right option.

In regard to dependent Claim 8, Miller fails to teach *when a motion is made with the pointing device in a particular direction associated with a desired completion candidate for at least a predetermined distance while the pointing device is in an active state and a further action is made with the pointing device to accept the desired completion candidate.* However, Agulnick teaches that in general, the user will bring the

tip of the stylus towards the screen ... and upon contact with the layer a gesture may be drawn. When the user is finished drawing the gesture, the stylus tip is simply removed from the layer and the system automatically detects this motion and processes the gesture (Col. 8, lines 54-64). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Agulnick as both inventions relate to pen-based computing. Adding the teaching of Agulnick provides the benefit of processing a gesture.

In regard to dependent Claims 10 and 11, Claims 10 and 11 reflect the method of processing text entered into a personal computing device with a pointing device as Claimed in Claim 6, and are rejected along the same rationale.

In regard to dependent Claims 130, 132, 136, and 138, Miller teaches *obtaining a refined list of completion candidates for display in the search list* (see Fig. 4).

Miller fails to teach *when a completion candidate in the search list remains selected for a* predetermined time limit. However, Agulnick teaches an event begins when the stylus touches the front surface of the display, input is then terminated in one of three ways: (a) by lifting the stylus from the surface; (b) by a series of strokes followed by a final lift of the stylus and lack of contact for a specific time interval, or "timeout" (Col. 1, lines 66- 68, Col. 2, lines 1-3). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and

Agulnick as both inventions relate to pen-based computing. Adding the teaching of Agulnick provides the benefit of assuring that the user had chosen the right option.

In regard to dependent Claims 137, 139, Claims 137, and 139 reflect the method of processing text entered into a personal computing device with a pointing device as Claimed in Claim 104 and is rejected along the same rationale.

Claim 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller in view of Hachamovitch and in further view of Forcier (U.S. Patent No. 5,220,649).

In regard to dependent Claim 7, Miller fails to teach that *when a gesture is made with the pointing device in a direction associated with a desired completion candidate without the pointing device necessarily moving towards or onto a portion of the graphical user interface where the completion candidate is displayed.* However, Forcier teaches a Pen Moved Event (see Fig. 3C1, 3C2). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Forcier as both inventions relate to pen-based computing. Adding the teaching of Forcier provides the benefit of inserting space wrapping and moving forward any words that cross the right margin.

Claims 12-13, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller in view of Hachamovitch and in further view of Niemeier (U.S. Patent No. 5,574,482).

In regard to dependent Claim 12, Miller fails to teach *when a predetermined character or key is selected.* However, Niemeier teaches a QWERTY style keyboard with various letters of the alphabet being selected on a touch-sensitive screen with an input device (see Figs. 1-29). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Niemeier as both inventions relate to pen-based computing. Adding the teaching of Niemeier provides the benefit of detecting a keystroke on a touch-sensitive screen.

In regard to dependent Claim 13, Claim 13 reflects the method for processing text entered into a personal computing device with a pointing device as Claimed in Claims 6 and 8, and is rejected along the same rationale.

In regard to dependent Claim 26, Miller fails to teach *configuring a digital keyboard to include a plurality of characters assigned to predetermined locations within a layout for the digital keyboard according to a predetermined frequency distribution associated with the plurality of characters, the plurality of characters including less commonly used characters and more commonly used characters based on the predetermined frequency distribution.* However, Niemeier teaches a digital keyboard including a plurality of characters in predetermined locations based on any number of layouts. Once a key is depressed, a list of temporary keys predetermined by the study of word frequency and the sequence of letters in the language appear around the depressed key. In this arrangement the most often used keys or sequences of keys are

located closer to the depressed key than the lesser used key or keys (Col. 5, lines 15-25, Figs 4-32). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Niemeier as both inventions relate to pen-based computing. Adding the teaching of Niemeier provides the benefit of using a virtual keyboard in an efficient manner.

Claims 22-23, 25, 33-34, 54-55, 101-104, 142-145, 163, and 172-188 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller in view of Hachamovitch and in further view of Skinner et al. (hereinafter, Skinner, U.S. Patent No. 6,661,920).

In regard to dependent Claim 22 (and similarly dependent Claim 54), Miller fails to teach *displaying the digital keyboard on a user interface of the personal computing device when a user is entering text a keystroke at a time.* However, Skinner teaches a "virtual keyboard" (see Abstract). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Skinner as both inventions relate to pen-based. Adding the teaching of Skinner provides the benefit of displaying and using a virtual keyboard.

Skinner does not specifically teach *monitoring for user input.* However, Miller teaches a text completion system that monitors the entry of a stream of characters into a data file associated with a program module running on a computer system. The stream of characters defines a plurality of complete data entries followed by a partial data entry, which are displayed on a display screen. (Col. 4, lines 63-67; Col. 5, line 1).

Miller also teaches *(c) if the user input corresponds to activating the search list, replacing the digital keyboard with the search list and waiting for further user input* (Col. 7, lines 66-67, Col. 8, lines 1-2).

Miller also teaches *(d) if the user input corresponds to terminating use of the search list once activated, replacing the search list with the digital keyboard and waiting for further user input* at step (410) of Fig. 4 if the partial data entry does not satisfy the search criteria, then go to step (402) which waits to receive another character.

In regard to dependent Claim 23 (and similarly dependent Claim 55), Miller fails to teach *that at least part of the partial text entry is received via a digital keyboard, the method further comprising displaying simultaneously both the digital keyboard and the search list.* However, Skinner teaches a method and system for providing simultaneous data entry for a computer system having both on-screen keyboard entry and mechanisms for handwriting recognition entry (Col.2, lines 54-57). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Skinner as both inventions relate to pen-based computing. Adding the teaching of Skinner provides the benefit of displaying and using a virtual keyboard.

In regard to dependent Claim 25, Miller fails to teach that *at least part of the partial text entry is received via a digital keyboard, the method further comprising swapping between displaying one digital keyboard layout and at least one other digital*

keyboard layout in response to user input. However, Skinner teaches display of multiple keyboards controlled by buttons. In this case, button (430) relates to alphabetic characters, button (440) relates to numeric characters, and button (450) relates to international characters (see Fig. 7a). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Skinner as both inventions relate to pen-based computing. Adding the teaching of Skinner provides the benefit of displaying and using a virtual keyboard.

In regard to dependent Claim 33, Miller fails to teach that *at least part of the partial text entry is received via a digital keyboard, the method further comprising displaying the search list docked with the digital keyboard*. However, Skinner teaches a method and system for providing simultaneous data entry for a computer system having both on-screen keyboard entry and mechanisms for handwriting recognition entry (Col.2, lines 54-57). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Skinner as both inventions relate to pen-based computing. Adding the teaching of Skinner provides the benefit of displaying and using a virtual keyboard.

In regard to dependent Claim 34, Miller fails to teach *displaying the digital keyboard in response to a user selection, and hiding the digital keyboard in response to another user selection*. However, Skinner teaches when a user taps button (520) or buttons (325) with the stylus (80), a virtual keyboard window opens on screen (105)

along with data entry window (310) (Col. 7, lines 20-22). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Skinner as both inventions relate to pen-based computing. Adding the teaching of Skinner provides the benefit of displaying and using a virtual keyboard.

Skinner fails to specifically teach *hiding the digital keyboard in response to another user* selection. However, it is notoriously well known in the art of pen-based computing to dismiss windows such as a digital keyboard once a user has finished with it, as one would like to continue input with a clear screen uncluttered by windows that are no longer being used.

In regard to dependent Claim 101 (and similarly dependent Claim 163), Miller fails to teach *displaying simultaneously a digital keyboard and the search list, wherein at least part of the partial text entry is received via the digital keyboard, and wherein the partial text entry is modified via any of the digital keyboard and the search list.* However, Skinner teaches a method and system for providing simultaneous data entry for a computer system having both on-screen keyboard entry and mechanisms for handwriting recognition entry (Col.2, lines 54-57). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Skinner as both inventions relate to pen-based computing. Adding the teaching of Skinner provides the benefit of displaying and using a virtual keyboard.

In regard to dependent Claim 102, Claim 102 reflects the method of processing text entered into a personal computing device with a pointing device as Claimed in Claim 96 and is rejected along the same rationale.

In regard to dependent Claim 103 (and similarly dependent Claim 145), Miller fails to teach *(a) ... the partial text entry via a digital keyboard displayed in the graphical user* interface. However, Skinner teaches a method and system for providing simultaneous data entry for a computer system having both on-screen keyboard entry and mechanisms for handwriting recognition entry (Col.2, lines 54-57). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Skinner as both inventions relate to pen-based computing. Adding the teaching of Skinner provides the benefit of displaying and using a virtual keyboard.

Miller fails to teach the additional limitation of *at least a first character.* However, Hachamovitch teaches a partial data entry consisting of a single character (Col. 7, lines 31-38; see example where user enters single letter "M"). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Hachamovitch as both inventions relate to offering suggestions for completion candidates based on partial text entry. Adding the teaching of Hachamovitch provides the benefit of offering suggestions based on as few as a single character.

Miller also fails to teach *(b) displaying simultaneously the search list and the digital keyboard in the graphical user interface when the partial text entry comprises at*

least the first character. However, Skinner teaches a method and system for providing simultaneous data entry for a computer system having both on-screen keyboard entry and mechanisms for handwriting recognition entry (Col.2, lines 54-57). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Skinner as both inventions relate to pen-based computing. Adding the teaching of Skinner provides the benefit of displaying and using a virtual keyboard.

In regard to dependent Claim 104, Claim 104 reflects the method of processing text entered into a personal computing device with a pointing device as Claimed in Claim 103 and is rejected along the same rationale.

In addition, *(c) displaying the search list while not displaying the digital keyboard in the graphical user interface in response to obtaining the second plurality of completion candidates.*

In regard to dependent Claim 142, Miller fails to teach *(a) displaying a digital keyboard in a graphical user interface and (b) receiving at least part of the partial text entry via the digital keyboard* and *(c) modifying the partial text entry via any of the digital keyboard and the search list.* However, Skinner teaches a method and system for providing simultaneous data entry for a computer system having both on-screen keyboard entry and mechanisms for handwriting recognition entry (Col.2, lines 54-57). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Skinner as both inventions relate to pen-based

computing. Adding the teaching of Skinner provides the benefit of displaying and using a virtual keyboard.

In regard to dependent Claim 143 (and similarly dependent Claim 148), Claim 143 (and similarly Claim 148) reflects the method of processing text entered into a personal computing device with a pointing device as Claimed in Claim 101, and is rejected along the same rationale.

In regard to dependent Claim 144 (and similarly dependent Claim 149), Claim 144 (and similarly Claim 149) reflect the method of processing text entered into a personal computing device with a pointing device as Claimed in Claim 96, and are rejected along the same rationale.

In regard to dependent Claim 146, Claim 146 reflects the method of processing text entered into a personal computing device with a pointing device as Claimed in Claim 142, and is rejected along the same rationale.

In regard to dependent Claim 147, Claim 147 reflects the method of processing text entered into a personal computing device with a pointing device as Claimed in Claim 96, and is rejected along the same rationale.

In regard to dependent Claim 150, Claim 150 reflects the method of processing text entered into a personal computing device with a pointing device as Claimed in Claim 104, and is rejected along the same rationale.

In regard to dependent Claims 151-153, Miller teaches *replacing the digital keyboard with the search list in response to a user input signal associated with activating the search list* (Col. 7, lines 66-67, Col. 8, lines 1-2).

In regard to dependent Claim 154, Claim 154 reflects the method of processing text entered into a personal computing device with a pointing device as Claimed in Claim 104 and is rejected along the same rationale.

In regard to dependent Claim 172 (and similarly dependent Claim 178), Claim 172 (and similarly Claim 178) reflect the system of processing text entered into a personal computing device with a pointing device as Claimed in Claim 163, and is rejected along the same rationale.

In regard to dependent Claim 174, Miller fails to teach *(a) ... of the partial text entry via a digital keyboard displayed in a graphical user interface.* However, Skinner teaches a "virtual keyboard" (see Abstract). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and

Skinner as both inventions relate to pen-based. Adding the teaching of Skinner provides the benefit of displaying and using a virtual keyboard.

Miller fails to teach the additional limitation *receiving at least a first character.* However, Hachamovitch teaches a partial data entry consisting of a single character (Col. 7, lines 31-38; see example where user enters single letter "M"). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Hachamovitch as both inventions relate to offering suggestions for completion candidates based on partial text entry. Adding the teaching of Hachamovitch provides the benefit of offering suggestions based on as few as a single character.

Miller fails to teach *(b) means for displaying simultaneously the search list and the digital keyboard in the graphical user interface when the partial text entry comprises at least the first character.* However, Skinner teaches a method and system for providing simultaneous data entry for a computer system having both on-screen keyboard entry and mechanisms for handwriting recognition entry (Col.2, lines 54-57). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Skinner as both inventions relate to pen-based computing. Adding the teaching of Skinner provides the benefit of displaying and using a virtual keyboard.

In regard to dependent Claim 175, Miller fails to teach *(a) means for receiving at least part of the partial text entry via a digital keyboard* and *(b) means for displaying*

simultaneously the digital keyboard and the search list in a graphical user interface while the digital keyboard is in use. However, Skinner teaches a method and system for providing simultaneous data entry for a computer system having both on-screen keyboard entry and mechanisms for handwriting recognition entry (Col.2, lines 54-57). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Skinner as both inventions relate to pen-based computing. Adding the teaching of Skinner provides the benefit of displaying and using a virtual keyboard.

(c) means for displaying the search list while not displaying the digital keyboard in the graphical user interface in response to obtaining the second plurality of completion candidates.

In regard to dependent Claim 176, Miller fails to teach *means for displaying a digital keyboard for generating at least part of the partial text entry.* However, Skinner teaches a "virtual keyboard" (see Abstract). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Skinner as both inventions relate to pen-based. Adding the teaching of Skinner provides the benefit of displaying and using a virtual keyboard.

In regard to dependent Claim 177, Claim 177 reflects the system of processing text entered into a personal computing device with a pointing device as Claimed in Claim 171 and is rejected along the same rationale.

In regard to dependent Claim 179, *means for obtaining a modified set of completion candidates that begin with the partial text entry as the partial text entry is modified.*

In regard to dependent Claim 180, Miller fails to teach *means for displaying simultaneously the digital keyboard and the search list in a user interface while the digital keyboard is in use.* However, Skinner teaches a method and system for providing simultaneous data entry for a computer system having both on-screen keyboard entry and mechanisms for handwriting recognition entry (Col.2, lines 54-57). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Skinner as both inventions relate to pen-based computing. Adding the teaching of Skinner provides the benefit of displaying and using a virtual keyboard.

In regard to dependent Claim 181-183, Miller teaches *means for replacing the digital keyboard with the search list in response to a user input signal associated with activating the search list* (Col. 7, lines 66-67, Col. 8, lines 1-2).

In regard to dependent Claim 184, Claim 184 reflects the system of processing text entered into a personal computing device with a pointing device as Claimed in Claim 175, and is rejected along the same rationale.

In regard to dependent Claims 185-188, Miller teaches *computer-readable medium* (see Abstract).

Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller in view of Hachamovitch and in further view of Skinner and in further view of Lee (U.S. Patent No. 6,292,179).

In regard to dependent Claim 27, Miller fails to teach *characters within the digital keyboard are displayed in rings with the characters in at least one ring organized alphabetically in a clockwise order.* However, Lee teaches a software keyboard system using the trace direction of a stylus, in which a key includes a plurality of key codes, and thus the key code is selected in accordance with the trace of the stylus drawn on the key (Col. 1, lines 52-56; Figs. 4a-b, 5a-b). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Lee as both inventions relate to pen-based computing. Adding the teaching of Lee provides the benefit of more efficient use of screen space.

Lee fails to specifically teach *rings with the characters in at least one ring organized alphabetically in a clockwise order.* However, Lee does teach a method that saves screen space for characters of a digital keyboard. It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Lee as both inventions relate to pen-based computing. Adding the teaching of Lee provides the benefit of more efficient use of screen space.

In regard to dependent Claim 28, Miller fails to teach that *characters within the digital keyboard are displayed in rings with the characters in at least one ring organized alphabetically in a counter-clockwise order.* However, Lee teaches a software keyboard system using the trace direction of a stylus, in which a key includes a plurality of key codes, and thus the key code is selected in accordance with the trace of the stylus drawn on the key (Col. 1, lines 52-56; Figs. 4a-b, 5a-b). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Lee as both inventions relate to pen-based computing. Adding the teaching of Lee provides the benefit of more efficient use of screen space.

Lee fails to specifically teach a *ring organized alphabetically in a counter-clockwise order.* However, Lee does teach a method that saves screen space for characters of a digital keyboard. It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Lee as both inventions relate to pen-based computing. Adding the teaching of Lee provides the benefit of more efficient use of screen space.

In regard to dependent Claim 29, Miller fails to teach *characters within the digital keyboard are displayed in rings with about half of the characters in at least one ring ordered alphabetically in a counter-clockwise order and the remaining characters in the at least one ring organized alphabetically in a clockwise order.* However, Lee teaches a software keyboard system using the trace direction of a stylus, in which a key includes a plurality of key codes, and thus the key code is selected in accordance with

the trace of the stylus drawn on the key (Col. 1, lines 52-56). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Lee as both inventions relate to pen-based computing. Adding the teaching of Lee provides the benefit of more efficient use of screen space.

Lee fails to teach *rings organized alphabetically in a clockwise and counter-clockwise order*. However, Lee does teach a method that saves screen space for characters of a digital keyboard. It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Lee as both inventions relate to pen-based computing. Adding the teaching of Lee provides the benefit of more efficient use of screen space

Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miller in view of Hachamovitch and in further view of Skinner in further view of (LaGrange et al. (hereinafter, LaGrange, U.S. Patent No. 5,896, 321).

In regard to dependent Claim 35, Miller fails to teach *sensing for the pointing device with a proximity sensing input surface, displaying the digital keyboard when the pointing device is detected within a predetermined distance of a proximity sensing input surface, and hiding the digital keyboard when the pointing device not detected within the predetermined distance of the proximity sensing input surface*. However, LaGrange teaches a system comprising a conductive stylus used in conjunction with a capacitance sensitive touch pad, said system providing at least two different signals to an associated computer system (see Abstract).

LaGrange does not specifically teach *displaying and hiding a digital keyboard.* However, LaGrange does teach a method by which tools such as a digital keyboard can be activated and deactivated by a stylus device on a proximity sensitive screen. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and LaGrange as both inventions relate to pen-based computing. Adding the teaching of LaGrange provides the benefit of sensing the proximity of a pointing device to a touch-sensitive screen.

Claims 36-37, 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller in view of Hachamovitch and in further view of Skinner and in further view of Bi et al. (hereinafter, Bi, U.S. Patent No. 6,262,719).

In regard to dependent Claim 36, Miller fails to teach *displaying a cursor on a screen that tracks movement with the pointing device including displaying the cursor over the digital keyboard when the digital keyboard is active.* However, Bi teaches a passive stylus that can be used in either a pen mode or a mouse mode. In a mouse mode, however, a cursor may be generated which follows the "tip" of the pen (Col. 3, lines 55-61).

Bi also teaches a virtual keyboard as part of the GUI. Activation of the keys on the virtual keyboard is by way of the stylus or by finger input (Col. 3, lines 62-65).

Bi does not specifically teach *displaying the cursor over the digital keyboard when the digital keyboard is active.* However, Bi does teach a cursor and a virtual keyboard, the activation of which is done by the way of a stylus or finger leading one of

ordinary skill in the at the time of invention to combine the teachings of Miller and Bi as both inventions relate to pen-based computing. Adding the teaching of Bi provides the benefit of a cursor that follows the movement of a stylus on a touch-sensitive screen.

In regard to dependent Claim 37, Miller fails to explicitly teach *relocating the cursor to a center of the digital keyboard when a character from the digital keyboard is selected.* However, this function is notoriously well known in the art of Graphical User Interfaces as one desires to quickly identify which window is currently active from among multiple windows, especially on a small screen where display space is at a premium. It would have therefore been obvious to one of ordinary skill in the art at the time of invention to reposition a reference point such as a cursor to a common starting point, once a command has been issued directing the user to the currently active window for further actions.

In regard to dependent Claims 40-41 (and similarly dependent Claim 42), Miller fails to teach *the cursor is displayed so as to track the movement of the pointing device precisely.* However, Bi teaches a passive stylus that can be used in either a pen mode or a mouse mode. In a mouse mode, however, a cursor may be generated which follows the "tip" of the pen (Col. 3, lines 55-61).

Bi also teaches a virtual keyboard as part of the GUI. Activation of the keys on the virtual keyboard is by way of the stylus or by finger input (Col. 3, lines 62-65). It would have been obvious to one of ordinary skill in the art at the time of invention to

combine the teachings of Miller and Bi as both inventions relate to pen-based computing. Adding the teaching of Bi provides the benefit of a cursor that follows the movement of a stylus on a touch-sensitive screen.

Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miller in view of Hachamovitch and in further view of Skinner and in further view of Bi and in further view of LaGrange.

In regard to dependent Claim 43, Miller fails to teach *the cursor is displayed on the screen in a position remote from the pointing device.* However, LaGrange teaches a system comprising a conductive stylus used in conjunction with a capacitance sensitive touch pad, said system providing at least two different signals to an associated computer system. The stylus is a pen-like device having an actable switch which when actuated substantially increases the capacitive disturbance caused by the conductive stylus on the touch pad (see Abstract). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and LaGrange as both inventions relate to pen-based computing. Adding the teaching of LaGrange provides the benefit of sensing the proximity of a pointing device to a touch-sensitive screen.

Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miller in view of Hachamovitch and in further view of Bi and in further view of Skinner.

In regard to dependent Claim 44 (and similarly dependent Claim 45), Miller fails to teach *displaying the digital keyboard near where a pointing device is located in electronic text*. However, Skinner teaches a virtual keyboard screen (315) below a data entry window (310), (see Fig. 6). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Miller and Skinner as both inventions relate to pen-based computing. Adding the teaching of Skinner provides the benefit of placing a digital keyboard in a convenient location on a touch-sensitive screen.

Response to Arguments

Applicant's arguments with respect to Claims 1-56, 83-85, 96-106, 130-133, 136-139, and 142-189 have been considered but are moot in view of the new ground(s) of rejection.

Regarding applicant's arguments with respect to the rejection of independent Claim 1 and dependent Claims thereof, the examiner responds to the applicant's points:

In regard to point (a), a new reference, Hachamovitch et al. is added in combination with Miller to teach the deficiencies pointed out by the applicant with regard to Miller.

In regard to point (b), Miller only teaches limitation (f) of claim 1. However, as for limitation (e), it is notoriously well known in the art of pen-based computing to dismiss windows such as a text completion window once a user has finished with it, as one would like to continue input with a clear screen uncluttered by windows that are no longer being used.

In regard to point (c), applicant notes that Miller expressly teaches one skilled in the art to avoid using short partial data entries to obtain word completion suggestions (Col. 12, lines 19-28). The examiner disagrees.

The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the Claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Additionally, it appears that Miller's declaration in Col. 12, lines 19-28 is merely an opinion of the inventor. Since the examiner cannot find a recitation declaring that the inclusion of short partial data entries would render Miller's invention inoperable, then the combination of references is valid and would provide Miller the benefit of decreased time of finding a completion candidate.

In regard to point (d), see Examiners response to points (a) and (b) above.

In regard to point (e), see Examiners response to points (a), (b), and (c) above.

Regarding applicant's arguments with respect to the rejection of independent Claims 47, 83 and dependent claims thereof, these arguments are substantially similar to those made with respect to independent Claim 1.

Regarding applicant's arguments with respect to the rejection of independent Claims 84 and 85, these arguments are substantially similar to those made with respect to independent Claim 1.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James H. Blackwell whose telephone number is 571-272-4089. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen S. Hong can be reached on 571-272-4124. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James H. Blackwell
06/06/05

William L. Bashore
WILLIAM BASHORE
PRIMARY EXAMINER
6/6/2005